

REMARKS

Claims 32-54 have been canceled.

Independent claim 1 has been amended to include the limitations of dependent claim 2. Dependent claim 2 has been amended to include different limitations.

Dependent claim 4 has been amended into independent form to include the limitations of claim 1.

Independent claim 5 has been amended to include the limitations of dependent claim 7. Dependent claim 7 has been amended to include different limitations.

Dependent claim 9 has been amended into independent form to include the limitations of claim 5.

Dependent claim 10 has been amended into independent form with the limitations of claim 5. Dependent claims 11-13 have been amended to depend on claim 10.

Independent claim 14 has been amended to include the limitations of dependent claim 15. Dependent claim 15 has been amended to include different limitations.

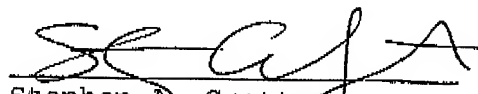
Independent claim 19 has been amended to include the limitations of dependent claim 20. Dependent claim 20 has been amended to include different limitations.

Independent claim 26 has been amended to include the limitations of dependent claim 28. Dependent claim 28 has been amended to include different limitations.

In view of the above amendments, favorable consideration and allowance of claims 1-31 is requested. Should any issues remain, the Examiner is asked to contact the undersigned by telephone. Please deduct any fees due for the claim amendment from Deposit Account No. 07-1857.

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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

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March 3, 2003
Date of Signature


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MARKED VERSION OF AMENDED CLAIMS SHOWING CHANGES

1. (amended) A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:

- providing a substrate comprising a contact, a first side and an opposing second side;
- forming an opening in the contact;
- forming a first electrically insulating layer on the first side and a second electrically insulating layer on the second side;
- directing a laser beam through the opening and at the substrate without touching the contact to form a lasered opening through the substrate;
- forming a conductive member in the lasered opening;
- forming a first external contact on the first electrically insulating layer in electrical communication with the conductive member; and
- forming a second external contact on the second electrically insulating layer in electrical communication with the conductive member.

2. (amended) The method of claim 1 wherein the contact comprises metal and the substrate comprises a semiconductor. [further comprising providing the substrate with a contact, forming an opening in the contact, and wherein during the directing step the laser beam is directed through the opening without touching the contact.]

4. (amended) [The method of claim 1 wherein the conductive member comprises]

A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:

providing a substrate comprising a first side and an opposing second side;

forming a first electrically insulating layer on the first side and a second electrically insulating layer on the second side;

directing a laser beam at the substrate to form a lasered opening through the substrate;

forming a conductive member in the lasered opening having a first enlarged terminal portion[s] and a second enlarged terminal portion;

forming a first external contact on the first enlarged terminal portion; and

forming a second external contact on the second enlarged terminal portion.

[for the first external contact and the second external contact.]

5. (amended) A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:

providing a substrate comprising a first side, an opposing second side and a contact on the first side comprising a metal;

forming an opening in the contact;

directing a laser beam at the opening and through the substrate without touching the metal to laser drill a via aligned with the opening;

forming a conductive member in the via in electrical communication with the contact;

forming a first external contact on the first side in electrical communication with the conductive member; and

forming a second external contact on the second side in electrical communication with the conductive member.

7. (amended) The method of claim 5 wherein the contact is in electrical communication with integrated circuits on the substrate.
[comprises metal and the laser beam passes through the metal without touching the metal.]

9. (amended) [The method of claim 5 wherein]
A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:
providing a substrate comprising a first side, an opposing second side and a contact on the first side;
forming an opening in the contact;
directing a laser beam at the opening and through the substrate to laser drill a via aligned with the opening;
forming a conductive member in the via in electrical communication with the contact;
forming a first external contact on the first side in electrical communication with the conductive member, the first external contact [and the second external contact comprise an] comprising a first enlarged terminal portion[s] of the conductive member[s]; and
forming a second external contact on the second side in electrical communication with the conductive member, the second external comprising a second enlarged terminal portion of the conductive member.

10. (amended) [The method of claim 5 wherein]
A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:
providing a substrate comprising a first side, an opposing second side and a contact on the first side;
forming an opening in the contact;
directing a laser beam at the opening and through the substrate to laser drill a via aligned with the opening;
forming a conductive member in the via in electrical communication with the contact;

forming a [the] first external contact on the first side [and the second external contact comprise] comprising a first concave segment of the conductive member; and
forming a second external contact on the second side comprising a second concave segment of the conductive member.

11. (amended) The method of claim [5] 10 wherein the contact is in electrical communication with integrated circuits on the substrate.

12. (amended) The method of claim [5] 10 wherein the substrate comprises a semiconductor die and the contact comprises a bond pad on the die.

13. (amended) The method of claim [5] 5 wherein the substrate comprises a semiconductor material and further comprising forming an insulating layer in the via prior to forming the conductive member.

14. (amended) A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:

providing a substrate having a contact, a first side and an opposing second side;

forming a mask on the first side having an opening therein;

etching a second opening in the contact using the mask;

directing a laser beam at the second opening and through the substrate without touching the contact to form a via in the substrate;

depositing a conductive member in the via having a first terminal portion proximate to the first side and a second terminal portion proximate to the second side;

stripping the mask;

forming a first non-oxidizing layer on the first terminal portion; and

forming a second non-oxidizing layer on the second terminal portion,

15. (amended) The method of claim 14 wherein the contact comprises a metal.

[further comprising providing the substrate with a contact, etching a second opening in the contact using the opening in the mask, and directing the laser beam at the second opening without touching the contact.]

19. (amended) A method for fabricating a semiconductor component or an interconnect for semiconductor components comprising:

providing a substrate having a first side, an opposing second side and a contact on the first side;

forming a first electrically insulating layer on the first side and a second electrically insulating layer on the second side;

forming an opening in the contact;

directing a laser beam at the opening and through the substrate to form a via aligned with the contact;

forming a conductive member in the via and in the opening having a first terminal portion proximate to the first side, and a second terminal portion proximate to the second side;

forming a first non-oxidizing layer on the first terminal portion and on the first electrically insulating layer; and

forming a second non-oxidizing layer on the second terminal portion and on the second electrically insulating layer.

20. (amended) The method of claim 19 wherein during the directing step the laser beam does not touch the contact.

[further comprising forming a first electrically insulating layer on the first side, forming a second electrically insulating layer on the second side, forming the first non-oxidizing layer on the first electrically insulating layer, and forming the second non-oxidizing layer on the second electrically insulating layer.]

26. (amended) A method for fabricating a semiconductor component comprising:

providing a substrate comprising a first side, [and] an opposing second side, and a contact on the first side having an opening therein;

directing a laser beam through the opening at the first side without touching the contact to form a counter bored via in the substrate;

forming a conductive member in the via;

thinning the substrate from the second side to expose the conductive member;

forming a first external contact on the first side in electrical communication with the conductive member; and

forming a second external contact on the second side in electrical communication with the conductive member.

28. (amended) The method of claim 26 wherein the substrate comprises a semiconductor die having a plurality of integrated circuits and the contact is in electrical communication with the integrated circuits.

[contact on the first side having an opening therein and the laser beam is directed through the opening without touching the contact.]

29. (amended) The method of claim 26 wherein the substrate comprises a semiconductor [die or] wafer.